



SEQUENCE LISTING

<110> Gerald, Christophe P.G.

Jones, Kenneth A.

Bonini, James A.

Borowsky, Beth

<120> DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
and Uses Thereof

<130> 1795/57155-A

B1
<140>

<141>

<150> 09/161,113

<151> 1998-09-25

<160> 42

<170> PatentIn Ver. 2.0 - beta

<210> 1

<211> 1410

<212> DNA

<213> Rattus norvegicus

<400> 1

acccttcctg ggccccagtc taccgcttg aaggtgccg cctcctttgg agagtgtccc 60
ggagcagaca gtatggaggc ggagccctcc cagcctocca acggcagctg gccctgggt 120
cagaacggga gtgatgtgga gaccagcatg gcaaccagcc tcaccttctc ctctactac 180

caacactcct ctccggtggc agccatgttc atcgcggcct acgtgctcat ctctctcctc 240
 tgcattggtgg gcaacaccct ggtctgcttc attgtgctca agaaccggca catgcgcact 300
 gtcaccaaca tgtttatcct caacctggcc gtcagcgacc tgctgggtggg catcttctgc 360
 atgcccacaa cccttgtgga caaccttata actggttggc cttttgacaa cgccacatgc 420
 aagatgagcg gcttgggtgca gggcatgtcc gtgtctgcat cggttttcac actggtggcc 480
 atcgctgtgg aaagggtccg ctgcatcgtg caccctttcc gcgagaagct gacccttcgg 540
 aaggcgctgt tcaccatcgc ggtgatctgg gctctggcgc tgctcatcat gtgtccctcg 600
 gcggtcactc tgacagtcac ccgagaggag catcacttca tgctggatgc tcgtaaccgc 660
 tctacccgc tctactcgtg ctgggaggcc tggcccgaga agggcatgcg caaggctctac 720
 accgcggtgc tcttcgcgca catctacctg gtgccgctgg cgctcatcgt agtgatgtac 780
 gtgcgcactc cgcgcaagct atgccaggcc cccggtcctg cgcgcgacac ggaggaggcg 840
 gtggccgagg gtggccgcac ttgcgcgctg agggcccgcg tggtgacat gctggtcatg 900
 gtggcgctct tcttcacgtt gtcttggtg ccactctggg tgctgctgct gctcatcgac 960
 tatggggagc tgagcgagct gcaactgcac ctgctgtcgg tctacgcctt ccccttggca 1020
 cactggctgg ctttcttcca cagcagcgcc aaccccatca tctacggcta cttcaacgag 1080
 aacttcgccc gcggcttcca ggtgccttc cgtgcacagc tctgctggcc tccctgggcc 1140
 gccacaagc aagcctactc ggagcggccc aaccgcctcc tgcgcaggcg ggtggtggtg 1200
 gacgtgcaac ccagcgactc cggcctgcca tcagagtctg gcccagcag cggggtccca 1260
 gggcctggcc ggctgccact gcgcaatggg cgtgtggccc atcaggatgg cccgggggaa 1320
 gggccaggct gcaaccacat gccctcacc atcccggcct ggaacatttg aggtggtcca 1380
 gagaagggag ggccagtagt cctgtggccc 1410

<210> 2

<211> 432

<212> PRT

<213> Rattus norvegicus

<400> 2

Met Glu Ala Glu Pro Ser Gln Pro Pro Asn Gly Ser Trp Pro Leu Gly

1

5

10

15

Gln Asn Gly Ser Asp Val Glu Thr Ser Met Ala Thr Ser Leu Thr Phe

20

25

30

Ser Ser Tyr Tyr Gln His Ser Ser Pro Val Ala Ala Met Phe Ile Ala

35

40

45

Ala Tyr Val Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val

50

55

60

Cys Phe Ile Val Leu Lys Asn Arg His Met Arg Thr Val Thr Asn Met

65

70

75

80

B) Phe Ile Leu Asn Leu Ala Val Ser Asp Leu Leu Val Gly Ile Phe Cys

85

90

95

Met Pro Thr Thr Leu Val Asp Asn Leu Ile Thr Gly Trp Pro Phe Asp

100

105

110

Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val Ser

115

120

125

Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Phe Arg Cys

130

135

140

Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys Ala Leu Phe

145

150

155

160

Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met Cys Pro Ser

165

170

175

Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe Met Leu Asp
180 185 190

Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu Ala Trp Pro
195 200 205

Glu Lys Gly Met Arg Lys Val Tyr Thr Ala Val Leu Phe Ala His Ile
210 215 220

Tyr Leu Val Pro Leu Ala Leu Ile Val Val Met Tyr Val Arg Ile Ala
225 230 235 240

B1 Arg Lys Leu Cys Gln Ala Pro Gly Pro Ala Arg Asp Thr Glu Glu Ala
245 250 255

Val Ala Glu Gly Gly Arg Thr Ser Arg Arg Arg Ala Arg Val Val His
260 265 270

Met Leu Val Met Val Ala Leu Phe Phe Thr Leu Ser Trp Leu Pro Leu
275 280 285

Trp Val Leu Leu Leu Leu Ile Asp Tyr Gly Glu Leu Ser Glu Leu Gln
290 295 300

Leu His Leu Leu Ser Val Tyr Ala Phe Pro Leu Ala His Trp Leu Ala
305 310 315 320

Phe Phe His Ser Ser Ala Asn Pro Ile Ile Tyr Gly Tyr Phe Asn Glu
325 330 335

Asn Phe Arg Arg Gly Phe Gln Ala Ala Phe Arg Ala Gln Leu Cys Trp
340 345 350

Pro Pro Trp Ala Ala His Lys Gln Ala Tyr Ser Glu Arg Pro Asn Arg
355 360 365

Leu Leu Arg Arg Arg Val Val Val Asp Val Gln Pro Ser Asp Ser Gly
370 375 380

Leu Pro Ser Glu Ser Gly Pro Ser Ser Gly Val Pro Gly Pro Gly Arg
385 390 395 400

Leu Pro Leu Arg Asn Gly Arg Val Ala His Gln Asp Gly Pro Gly Glu
405 410 415

Gly Pro Gly Cys Asn His Met Pro Leu Thr Ile Pro Ala Trp Asn Ile
420 425 430

<210> 3

<211> 200

<212> DNA

<213> Homo sapiens

<400> 3

gagccctccc agcctcccaa cagcagttgg ccctaagtc agaatgggac taacactgag 60
gccaccccg gctacaaacct caccttctcc tctactatc agcacacctc ccctgtggcg 120
gccatgttca ttgtgggcta tgcgctcatc ttcctgctct gcatgggtggg caacaccctg 180

gtctgtttca tcgtgctcaa

200

<210> 4

<211> 66

<212> PRT

<213> Homo sapiens

<400> 4

Glu Pro Ser Gln Pro Pro Asn Ser Ser Trp Pro Leu Ser Gln Asn Gly

1

5

10

15

Thr Asn Thr Glu Ala Thr Pro Ala Thr Asn Leu Thr Phe Ser Ser Tyr

20

25

30

B)

Tyr Gln His Thr Ser Pro Val Ala Ala Met Phe Ile Val Ala Tyr Ala

35

40

45

Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val Cys Phe Ile

50

55

60

Val Leu

65

<210> 5

<211> 1302

<212> DNA

<213> Homo sapiens

<400> 5

gccgacaggg ctgcgcggga gaggttcac atgaatgaga aatgggacac aaactcttca 60
 gaaaactggc atcccatctg gaatgtcaat gacacaaagc atcatctgta ctcatatatt 120
 aatattacct atgtgaacta ctatcttcac cagcctcaag tggcagcaat cttcattatt 180
 tctacttttc tgatcttctt tttgtgcatg atgggaaata ctgtggtttg ctttattgta 240
 atgaggaaca aacatatgca cacagtcact aatctcttca tcttaaacct ggccataagt 300
 gatttactag ttggcatatt ctgcatgcct ataacactgc tggacaatat tatagcagga 360
 tggccatttg gaaacacgat gtgcaagatc agtggattgg tccagggaaat atctgtcgca 420
 gcttcagtct ttacgttagt tgcaattgct gtagataggt tccagtgtgt ggtctaccct 480
 tttaaaccaa agctcactat caagacagcg tttgtcatta ttatgatcat ctgggtccta 540
 gccatcacca ttatgtctcc atctgcagta atgttacatg tgcaagaaga aaaatattac 600
 cgagtgcagc tcaactccca gaataaaaacc agtccagctc actgggtgcg ggaagactgg 660
 ccaaatacag aaatgaggaa gatctacacc actgtgctgt ttgccaacat ctacctggct 720
 cccctctccc tcattgtcat catgtatgga aggattggaa tttcactctt cagggctgca 780
 gttcctcaca caggcaggaa gaaccaggag cagtggcacg tgggtgtccag gaagaagcag 840
 aagatcatta agatgctcct gattgtggcc ctgcttttta ttctctcatg gctgcccctg 900
 tggactctaa tgatgctctc agactacgct gacctttctc caaatgaact gcagatcatc 960
 aacatctaca tctacccttt tgcacactgg ctggcattcg gcaacagcag tgtcaatccc 1020
 atcatttatg gtttcttcaa cgagaatttc cgccgtggtt tccaagaagc tttccagctc 1080
 cagctctgcc aaaaaagagc aaagcctatg gaagcttatg ccctaaaagc taaaagccat 1140
 gtgctcataa acacatctaa tcagcttgct caggaatcta catttcaaaa ccctcatggg 1200
 gaaaccttgc tttataggaa aagtgtgaa aaacccaac aggaattagt gatggaagaa 1260
 ttaaaagaaa ctactaacag cagtgcagatt taaaagagc ta 1302

<210> 6

<211> 420

<212> PRT

<213> Homo sapiens

<400> 6

Met Asn Glu Lys Trp Asp Thr Asn Ser Ser Glu Asn Trp His Pro Ile

1

5

10

15

Trp Asn Val Asn Asp Thr Lys His His Leu Tyr Ser Asp Ile Asn Ile
20 25 30

Thr Tyr Val Asn Tyr Tyr Leu His Gln Pro Gln Val Ala Ala Ile Phe
35 40 45

Ile Ile Ser Tyr Phe Leu Ile Phe Phe Leu Cys Met Met Gly Asn Thr
50 55 60

Val Val Cys Phe Ile Val Met Arg Asn Lys His Met His Thr Val Thr
65 70 75 80

Asn Leu Phe Ile Leu Asn Leu Ala Ile Ser Asp Leu Leu Val Gly Ile
85 90 95

Phe Cys Met Pro Ile Thr Leu Leu Asp Asn Ile Ile Ala Gly Trp Pro
100 105 110

Phe Gly Asn Thr Met Cys Lys Ile Ser Gly Leu Val Gln Gly Ile Ser
115 120 125

Val Ala Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Asp Arg Phe
130 135 140

Gln Cys Val Val Tyr Pro Phe Lys Pro Lys Leu Thr Ile Lys Thr Ala
145 150 155 160

Phe Val Ile Ile Met Ile Ile Trp Val Leu Ala Ile Thr Ile Met Ser
165 170 175

Pro Ser Ala Val Met Leu His Val Gln Glu Glu Lys Tyr Tyr Arg Val
180 185 190

Arg Leu Asn Ser Gln Asn Lys Thr Ser Pro Val Tyr Trp Cys Arg Glu
195 200 205

Asp Trp Pro Asn Gln Glu Met Arg Lys Ile Tyr Thr Thr Val Leu Phe
210 215 220

Ala Asn Ile Tyr Leu Ala Pro Leu Ser Leu Ile Val Ile Met Tyr Gly
225 230 235 240

Arg Ile Gly Ile Ser Leu Phe Arg Ala Ala Val Pro His Thr Gly Arg
245 250 255

Lys Asn Gln Glu Gln Trp His Val Val Ser Arg Lys Lys Gln Lys Ile
260 265 270

Ile Lys Met Leu Leu Ile Val Ala Leu Leu Phe Ile Leu Ser Trp Leu
275 280 285

Pro Leu Trp Thr Leu Met Met Leu Ser Asp Tyr Ala Asp Leu Ser Pro
290 295 300

Asn Glu Leu Gln Ile Ile Asn Ile Tyr Ile Tyr Pro Phe Ala His Trp
305 310 315 320

Leu Ala Phe Gly Asn Ser Ser Val Asn Pro Ile Ile Tyr Gly Phe Phe
325 330 335

B1

Asn Glu Asn Phe Arg Arg Gly Phe Gln Glu Ala Phe Gln Leu Gln Leu
 340 345 350

Cys Gln Lys Arg Ala Lys Pro Met Glu Ala Tyr Ala Leu Lys Ala Lys
 355 360 365

Ser His Val Leu Ile Asn Thr Ser Asn Gln Leu Val Gln Glu Ser Thr
 370 375 380

Phe Gln Asn Pro His Gly Glu Thr Leu Leu Tyr Arg Lys Ser Ala Glu
 385 390 395 400

Lys Pro Gln Gln Glu Leu Val Met Glu Glu Leu Lys Glu Thr Thr Asn
 405 410 415

Ser Ser Glu Ile
 420

<210> 7

<211> 1293

<212> DNA

<213> Homo sapiens

<400> 7

atggaggggg agccctccca gcctcccaac agcagttggc ccctaagtca gaatgggact 60
 aacactgagg ccaccccggc tacaaacctc accttctcct cctactatca gcacacctcc 120
 cctgtggcgg ccatgttcat tgtggcctat gcgctcatct tctgtctctg catggtgggc 180
 aacaccctgg tctgtttcat cgtgctcaag aaccggcaca tgcatactgt caccaacatg 240
 ttcacacctca acctggctgt cagtgaacctg ctggtgggca tcttctgcat gccaccacc 300

B1

cttgtggaca acctcatcac tgggtggccc ttcgacaatg ccacatgcaa gatgagcggc 360
 ttggtgcagg gcatgtctgt gtcggcttcc gttttcacac tgggtggccat tgctgtggaa 420
 aggttccgct gcatcgtgca ccttttccgc gagaagctga cctgcggaa ggcgctcgtc 480
 accatcgccg tcatctgggc cctggcgctg ctcatcatgt gtccctcggc cgtcacgctg 540
 accgtcaccg gtgaggagca ccacttcatg gtggacgccc gcaaccgctc ctaccctctc 600
 tactcctgct gggaggcctg gcccgagaag ggcatgcgca gggcttacac cactgtgctc 660
 ttctcgaca tctacctggc gccgctggcg ctcatcgtgg tcatgtacgc ccgcatcgcg 720
 cgcaagctct gccaggcccc gggcccggcc cccgggggag aggaggtgct ggaccgcga 780
 gcatcgcggc gcagagcgcg cgtggtgcac atgctggtca tgggtggcgct gttcttcacg 840
 ctgtcctggc tgccgctctg ggcgctgctg ctgctcatcg actacgggca gctcagcgcg 900
 ccgcagctgc acctggtcac cgtctacgcc ttccctctcg cgtactggct ggccttcttc 960
 aacagcagcg ccaaccccat catctacggc tacttcaacg agaacttccg ccgcggcttc 1020
 caggccgct tccgcgccg cctctgcccg cgcccgtcgg ggagccacaa ggaggcctac 1080
 tccgagcggc ccggcgggct tctgcacagg cgggtcttcg tgggtggtgcg gccagcgac 1140
 tccgggctgc cctctgagtc gggccctagc agtggggccc ccaggcccgg ccgcctcccg 1200
 ctgcggaatg ggcgggtggc tcaccacggc ttgccaggg aagggcctgg ctgctccac 1260
 ctgcccctca ccattccagc ctgggatatc tga 1293

<210> 8

<211> 430

<212> PRT

<213> Homo sapiens

<400> 8

Met Glu Gly Glu Pro Ser Gln Pro Pro Asn Ser Ser Trp Pro Leu Ser

1

5

10

15

Gln Asn Gly Thr Asn Thr Glu Ala Thr Pro Ala Thr Asn Leu Thr Phe

20

25

30

Ser Ser Tyr Tyr Gln His Thr Ser Pro Val Ala Ala Met Phe Ile Val

35

40

45

Ala Tyr Ala Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val

50

55

60

Cys Phe Ile Val Leu Lys Asn Arg His Met His Thr Val Thr Asn Met

65

70

75

80

Phe Ile Leu Asn Leu Ala Val Ser Asp Leu Leu Val Gly Ile Phe Cys

85

90

95

Met Pro Thr Thr Leu Val Asp Asn Leu Ile Thr Gly Trp Pro Phe Asp

100

105

110

B1 Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val Ser

115

120

125

Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Phe Arg Cys

130

135

140

Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys Ala Leu Val

145

150

155

160

Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met Cys Pro Ser

165

170

175

Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe Met Val Asp

180

185

190

Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu Ala Trp Pro

195

200

205

Glu Lys Gly Met Arg Arg Val Tyr Thr Thr Val Leu Phe Ser His Ile

210

215

220

Tyr Leu Ala Pro Leu Ala Leu Ile Val Val Met Tyr Ala Arg Ile Ala

225

230

235

240

Arg Lys Leu Cys Gln Ala Pro Gly Pro Ala Pro Gly Gly Glu Glu Ala

245

250

255

Ala Asp Pro Arg Ala Ser Arg Arg Arg Ala Arg Val Val His Met Leu

260

265

270

Val Met Val Ala Leu Phe Phe Thr Leu Ser Trp Leu Pro Leu Trp Ala

275

280

285

Leu Leu Leu Leu Ile Asp Tyr Gly Gln Leu Ser Ala Pro Gln Leu His

290

295

300

Leu Val Thr Val Tyr Ala Phe Pro Phe Ala His Trp Leu Ala Phe Phe

305

310

315

320

Asn Ser Ser Ala Asn Pro Ile Ile Tyr Gly Tyr Phe Asn Glu Asn Phe

325

330

335

Arg Arg Gly Phe Gln Ala Ala Phe Arg Ala Arg Leu Cys Pro Arg Pro

340

345

350

Ser Gly Ser His Lys Glu Ala Tyr Ser Glu Arg Pro Gly Gly Leu Leu

355

360

365

His Arg Arg Val Phe Val Val Val Arg Pro Ser Asp Ser Gly Leu Pro

370

375

380

Ser Glu Ser Gly Pro Ser Ser Gly Ala Pro Arg Pro Gly Arg Leu Pro

385

390

395

400

Leu Arg Asn Gly Arg Val Ala His His Gly Leu Pro Arg Glu Gly Pro

405

410

415

Gly Cys Ser His Leu Pro Leu Thr Ile Pro Ala Trp Asp Ile

420

425

430

<210> 9

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<221> misc_feature

<222> (1)..(23)

<223> n = any nucleotide

<400> 9

gyntwyrynn tnwsntgggt ncc

23

<210> 10

<211> 23

B1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<221> misc_feature

<222> (1)..(23)

<223> n = any nucleotide

<400> 10

avnadngbrw avannanmgg rtt

23

<210> 11

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 11

ttatgcttcc ggctcgatatg ttgtg

25

<210> 12

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

B1

<400> 12

atgtgctgca aggcgattaa gttggg

26

<210> 13

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 13

ggtgctgctg ctgctcatcg actatg

26

B1
<210> 14

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 14

ttggcgctgc tgtggaagaa ggccag

26

<210> 15

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 15

cggtgctctt cgcgcacatc tacc

24

<210> 16

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 16

tgccaagggg aaggcgtaga ccgacagcag gtgcagttgc agctcgatca gctcccccata 60

<210> 17

<211> 53

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 17

ccacccttgt ggacaacctc atcactgggt ggcccttcga caatgccaca tgc

53

<210> 18

<211> 24

<212> DNA

B1

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 18

ctgctctgca tggtagggcaa cacc

24

<210> 19

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 19

gacggcgatg gtgacgagcg c

21

<210> 20

<211> 65

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 20

gtcaccaaca tgttcatacct caacctggct gtcagtgacc tgctggtggg catctttctgc 60

atgcc

65

B1

<210> 21

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 21

gcgagaagct gaccctgcgg aagg

24

<210> 22

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 22

tcgtcaccat cgccgtcatc tggg

24

<210> 23

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

B1

<400> 23

cgtcacatctgg gccgagggac acag

24

<210> 24

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 24

tgacggcgat ggtgacgagc gcc

23

B1
<210> 25

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 25

cagcctccca acagcagttg gcc

23

<210> 26

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 26

tagcaaggat ccgcatatgg aggggggagcc ctccc

35

<210> 27

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 27

cttcatgaat tcatcgctg catgtatctc gtgtcc

36

<210> 28

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 28

cgtgtacggt gggaggtcta tataagcaga g

31

<210> 29

<211> 27

<212> DNA

B1

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 29

ccatcctaatacgaactcaat atagggc

27

<210> 30

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

B1 <223> Description of Artificial Sequence: primer/probe

<400> 30

actcactata gggctcgagc ggc

23

<210> 31

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 31

tgatagtgag ctttggttta aaaggg

26

<210> 32

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 32

gaagatctac accactgtgc tgtttg

26

<210> 33

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 33

aacatctacc tggctcccct ctccc

25

<210> 34

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 34

B1

ttgtcatcat gtatggaagg attgg

25

<210> 35

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 35

gaccacacac tggaacctat ctac

24

B1
<210> 36

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 36

gcaattgcaa ctaacgtaaa gactg

25

<210> 37

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 37

tagcaaggat ccgaggttca tcatgaatga gaaatgg

37

<210> 38

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 38

cttcatgaat tcgcgtagta gagttaggat tatcac

36

<210> 39

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 39

ctcctactac caacactcct ctcc

24

<210> 40

<211> 19

<212> DNA

<213> Artificial Sequence

B1

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 40

acgggttacg agcatccag

19

<210> 41

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

B1
<223> Description of Artificial Sequence: primer/probe

<400> 41

gatcagtga ttggtccagg gaatatc

27

<210> 42

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer/probe

<400> 42

ccaggtagat gttggcaaac agcac

25
